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ABSTRACT

In 1993, under contract from the National Center for Education Statistics, the Educational Testing Service assessed the literacy proficiencies of a nationally representative sample of all adults, aged 16 and over, from nearly 27,000 homes. That assessment, the National Adult Literacy Survey, produced a profile of the English literacy skills of the adult population along three scales, each ranging from 0 to 500, for prose, documents, and quantitative material. This volume draws on results from the first official report on the survey issued in 1993. One in 5 adults performed at the lowest level of prose literacy, while 3 in 10, at Level 3, can match information in a text to the directive given to them. Only 1 in 33 were at the highest level, able to make high-level inferences based on text and to find information in dense text that contained distracting information. Results for document literacy and quantitative operations are similar. Three in 10 adults can solve problems with 2 or more numbers that must be found in printed material. Findings are presented in 28 graphs, and 15 example tasks illustrate the survey's problems. (SLD)

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ED 372 114

POLICY INFORMATION REPORT

BECOMING LITERATE ABOUT LITERACY

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li·ter (lē′tər), *n.* a unit of capacity redefined in 1964 by a reduction of 28 parts in a million to be exactly equal to one cubic decimeter. It is equivalent to 1.0567 U.S. liquid quarts and is equal to the volume of one kilogram of distilled water at 4°C. *Abbr.*: l Also, *esp. Brit.*, **litre.** [1800–10; < F *litre*, back formation from *litron* an old measure of capacity, deriv. (with *-on* n. suffix) of ML *litra* < Gk *lítra* pound]

lit·er·a·cy (lit′ər ə sē), *n.* **1.** the quality or state of being literate, esp. the ability to read and write. **2.** possession of education: *to question someone's literacy.* **3.** a person's knowledge of a particular subject or field: *to acquire computer literacy.* [1880–85; LITER(ATE) + -ACY] —**Syn. 2.** learning, culture.

lit′eracy test′, an examination to determine whether a person meets the literacy requirements for voting, serving in the armed forces, etc.; a test of one's ability to read and write. [1865–70]

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This report was written by Paul E. Barton of the ETS Policy Information Center.

Based on *Adult Literacy in America*, by Irwin S. Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad.

Additional copies of this report can be ordered for $7.50 (prepaid) from:

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Preface

This brief volume is possible because of the recent National Adult Literacy Survey completed by Educational Testing Service, under contract with the National Center for Education Statistics. The initial results were reported in ***Adult Literacy in America***, by Irwin S. Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad. Subsequent volumes will provide even greater detail. This very brief summary of the findings is for the busy educator, policymaker, or interested citizen.

While this is a cursory review of the survey results, the subject still requires some effort on the part of the reader to comprehend the state of literacy in America. In producing so condensed a report, I have both shortened and sometimes paraphrased the descriptions of the five literacy levels provided in the original report.

We hope this summary will encourage many readers to seek more information from the comprehensive reports issued by the National Center for Education Statistics.

Paul E. Barton
Director
Policy Information Center

Acknowledgments

Richard J. Coley created the charts and graphs. The report was reviewed by Irwin Kirsch, Lynn Jenkins, and Howard Wainer at Educational Testing Service, and by Andrew Kolstad at the National Center for Education Statistics. Nivedita S. Niyogi provided the editing, Carla Cooper the desktop publishing services, and Ric Bruce was the designer.

Summary and Highlights

In 1992, under contract to the National Center for Education Statistics, Educational Testing Service assessed the literacy proficiencies of a nationally representative sample of all adults, age 16 and over. That assessment, the National Adult Literacy Survey, produced a profile of the entire adult population's English literacy skills along three proficiency scales, each ranging from 0 to 500: prose, document, and quantitative. The survey employed the following definition of literacy:

> *Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.*

Under this definition, literacy skills are on a continuum, and there is no single point that separates "illiterates" from those who are literate. Accordingly, each of the three scales (corresponding to the three types of literacy: prose, document, and quantitative) were divided into five progressive levels that are characterized by tasks of increasing complexity. For example, on the prose scale, tasks in Level 1 (0 to 225) include locating or identifying information in a brief text, whereas tasks in Level 4 (326-375) include making inferences and synthesizing information from complex and lengthy texts.

This volume draws on the results from the first official report of the National Adult Literacy Survey, issued in September 1993. The report, titled *Adult Literacy in America*, was written by Irwin Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad.

Prose Literacy

- One in five adults performed at the lowest Prose level (Level 1). They can locate a single piece of information in a text, when there is little distracting information to deal with (page 6).*
- About one in four adults are at Prose Level 2. They can locate a single piece of information, when there is distracting information, and they can integrate, compare, and contrast information (page 7).
- Three in 10 adults are at Level 3. They can match information in a text to that in the directive given to them, when some inference is required (page 8).
- One in six adults are at Level 4. They can integrate and synthesize information from complex or lengthy passages and make more complex inferences (page 9).
- Just one in 33 adults — at Level 5 — can make high-level inferences based on text and can find information in dense text with considerable distracting information that might seem plausible but is incorrect (page 10).

Document Literacy

- Almost one in four adults are at Level 1 in Document Literacy. They can match information and fill in personal information on forms (page 11).*
- Almost three in 10 are at Level 2. They can match information in documents that contain distractors, and they can integrate information from several places in a document (page 12).
- Three in 10 adults are at Level 3. They can integrate several pieces of information and deal with rather complex tables and graphs that contain information not pertaining to the task (page 13).
- Almost one in seven adults are at Level 4. They can do tasks requiring greater inferences and involving more detailed information (page 14).
- One in 33 adults are at Level 5. They can use complex documents that contain distracting information and make high-level inferences (page 15).

Quantitative Literacy

- Over one in five adults are at Level 1. They can perform single, relatively simple operations (page 16).*
- One in four adults are at Level 2. They can perform an arithmetic operation using numbers given to them or easily located in the material (page 17).
- Three in 10 of all adults are at Level 3. They can solve problems with two or more numbers that must be found in printed material (page 18).
- One in six adults are at Level 4 and can handle two or more arithmetic operations in sequence (page 19).
- One in 25 adults perform at Level 5. They can perform multiple arithmetic operations sequentially (page 20).

* Level 1 is from 0 to 225; some adults are at the lower end of this level where they cannot perform even these routine tasks.

■ Among 40 million adults in the lowest level of Prose Literacy (Level 1), one in four have some kind of limiting physical or mental condition that may impair their literacy skills, or make improvement more difficult (page 21).

■ Literacy and the exercise of citizenship in a democracy are related. Higher levels of literacy go hand-in-hand with voting or obtaining information from newspapers and magazines (page 22).

■ The prison population is considerably less literate than the general population. Almost seven in 10 prisoners are at Levels 1 and 2 of Prose Literacy, compared with less than half of the general population (page 23).

■ Prose proficiency rises with education level. Three-fourths of adults with between zero and eight years of school are in Level 1, as are four in 10 high school dropouts. Over 75 percent of two-year college graduates, and 85 percent of four-year college graduates, reach at least Level 3. However, just 4 and 10 percent, respectively, reach Level 5 (page 24).

■ While fewer middle-age adults are at lower literacy levels than young adults, older adults are considerably less literate. However, older adults also have less education than middle-age or young adults (page 27).

■ Parents' education greatly influences the literacy proficiency levels reached by their children. Even among respondents with similar levels of education, those with better educated parents have higher prose literacy proficiencies (page 28).

■ Poverty and literacy are closely related; 43 percent of adults in Level 1 are poor or near poor, compared with just 4 percent in Level 5 (page 25).

■ Weekly wages and weeks worked per year rise with literacy level: Adults at Level 5 earn 2 1/2 times as much as adults at Level 1, and work more than twice as many weeks (page 26).

■ The average prose proficiencies of Black, Asian, Hispanic/Puerto Rican, Hispanic/Cuban, Hispanic/Central and South American, and Hispanic/Mexican adults are lower than the average proficiency of all laborers (page 29).

Our nation's growing concern about its state of literacy has been evident in local and state legislation, programs at all levels of government, and in a multitude of campaigns urging action. We are fortunate that the concern and the efforts to increase literacy exist, but unfortunately, these campaigns have had very little to go on in terms of hard information. There has been a lack of reliable information about the state of literacy in the population at large.

True, numbers have been used in abundance — most of us have seen at least one of the advertisements stating something to the effect of "x number of Americans can't read this ad" or "x number of high school graduates cannot read their high school diplomas." While the advertisements may serve as a wake-up call to the public, they are, nonetheless, misrepresentations of a complex problem. These numbers are based on distorted information and, by oversimplification, can hinder efforts to improve literacy.

One consequence of presenting the literacy problem in simple terms of how many people can't read or write is that it fosters a widespread belief that assessing literacy is a simple process — it can all be boiled down to a single number. As we proceed to examine the results of the first, large-scale national literacy assessment of all adults (age 16 and over), the first step we must take is to dispel that myth and become literate about literacy. We owe it to ourselves and to the thousands of people who are dedicated to improving literacy in this nation.

This summary report draws upon the results of the National Adult Literacy Survey, mandated by Congress and carried out by the National Center for Education Statistics through a contract with Educational Testing Service. ***Adult Literacy in America*** is the first report from the survey, written by Irwin S. Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad.

The term literacy is often used as just the opposite of illiteracy, and that term has come to be used as meaning that a person cannot read at all, cannot decode the printed word, and does not comprehend what is written. But literacy has a much richer and deeper meaning than that. Its dictionary definitions range from being able to read and write to being a well informed, educated person and to being familiar with literature. In the young adult literacy assessment of 1985, in an assessment of populations served by the U.S. Department of

Labor in 1990, and in this new assessment of all adults, the same definition was adopted by a broadly representative group of experts, as follows:

> *Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.*

This definition encompasses the multifaceted nature of literacy — it is not a single skill, i.e. reading, but rather literacy involves an ordered set of skills that are necessary to accomplish various tasks in various contexts. Balancing a checkbook, obtaining information from a train schedule, and understanding a passage from a novel — each of these tasks call for literacy skills but not the same skills. The National Adult Literacy Survey employed three proficiency scales to measure these distinct skills: prose, document, and quantitative. Their definitions are as follows:

Prose literacy — the knowledge and skills needed to understand and use information from texts that include editorials, news stories, poems, and fiction; for example, finding a piece of information in a newspaper article, interpreting instructions from a warranty, inferring a theme from a poem, or contrasting views expressed in an editorial.

Document literacy — the knowledge and skills required to locate and use information contained in materials that include job applications, payroll forms, transportation schedules, maps, tables, and graphs; for example, locating a particular intersection on a street map, using a schedule to choose the appropriate bus, or entering information on an application form.

Quantitative literacy — the knowledge and skills required to apply arithmetic operations, either alone or sequentially, using numbers embedded in printed materials; for example, balancing a checkbook, figuring out a tip, completing an order form, or determining the amount of interest from a loan advertisement.

More than 400 trained interviewers conducted the survey, administering the literacy assessment in nearly 27,000 homes during the first eight months of 1992. A separate assessment was carried out for the prison population. The assessment consisted of a set of tasks that simulated real life situations encountered at home, at work, and in the community. Almost all the tasks required participants to construct their responses, as opposed to choosing a response from multiple choices.

To ensure the broadest possible coverage of prose, document, and quantitative literacy, there were a total of 166 tasks requiring a variety of information-processing skills and strategies. For purposes of efficiency, each survey participant responded to a subset of these tasks, which were compiled in booklets that took about 45 minutes to complete. Additionally, participants spent about 20 minutes completing personal background questionnaires. The background data informs our understanding of the ways in which personal characteristics (race/ethnicity, age, educational attainment, labor market experiences, access to printed materials, etc.) are associated with demonstrated performance on each literacy scale.

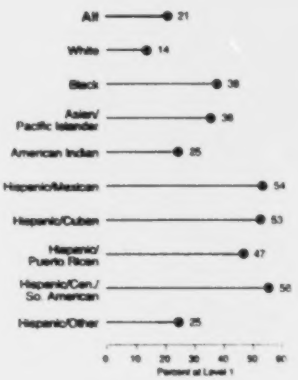
One way of presenting the results would be to describe how all adults did on all 166 tasks. To do so would place a very large burden on the reader, making it difficult to conclude what the state of literacy is for each population group. To help make such judgments, statistical methods were used to construct proficiency scales from the answers to the tasks, scales similiar to the ones used to report the results of the SAT. The National Adult Literacy Survey scales range from 0 to 500. Individual tasks are assigned scores along the scales, to give examples of what people with a particular score are likely to be able to do. The scales were then divided into five levels, each encompassing a defined score range, such as from 226 to 275. Individuals scoring within these scale levels would have a high probability of performing the tasks at that level successfully (a high probability is defined as at least 80 percent of the time).*

The sections that follow present highlights of the adult literacy survey. The first parts include data on each of the five levels of prose, document, and quantitative literacy. For each level, we describe what a typical adult at that literacy level can do, and also show an example of an item or exercise actually used in the assessment. We also show the percentage of respondents that reach that particular level for each racial/ethnic group. The following sections show the relationship of literacy to respondents' social and economic characteristics. The final section offers some concluding thoughts.

* And they would have a small chance of performing tasks at a higher level.

PROSE LITERACY, LEVEL 1 (0 TO 225)

One in five adults performed at the lowest Prose level (Level 1). They can locate a single piece of information in a text, when there is little distracting information to deal with.



They can:

read relatively short text to locate a single piece of information that is identical to, or synonymous with, the information given in the question or directive. Distracting information is minimal.*

They are likely to succeed at tasks such as:

- Identify the country in a short article *(149)*
- Locate one piece of information in a sports article *(210)* (See below)
- Underline a sentence explaining the action stated in a short article *(225)*

* However, some were at the lower end of this level where they could not perform even these routine tasks.

EXAMPLE TASK

Underline the sentence that tells what Ms. Chanin ate during the swim

Swimmer completes Manhattan marathon

The Associated Press

NEW YORK—University of Maryland senior Stacy Chanin on Wednesday became the first person to swim three 28-mile laps around Manhattan.

Chanin, 23, of Virginia, climbed out of the East River at 96th Street at 9:30 p.m. She began the swim at noon on Tuesday.

A spokesman for the swimmer, Roy Brunett, said Chanin had kept up her strength with "banana and honey" sandwiches, hot chocolate, lots of water and granola bars."

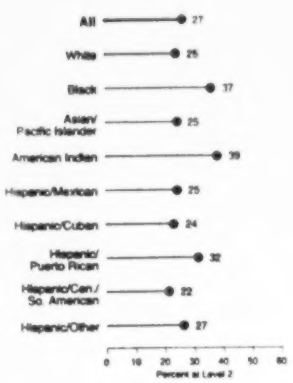
Chanin has twice circled Manhattan before and trained for the new feat by swimming about 28.4 miles a week. The Yonkers native has competed as a swimmer since she was 15 and hoped to persuade Olympic authorities to add a long-distance swimming event.

The Leukemia Society of America solicited pledges for each mile she swam.

In July 1983, Julie Ridge became the first person to swim around Manhattan twice. With her three laps, Chanin came up just short of Diana Nyad's distance record, set on a Florida-to-Cuba swim.

PROSE LITERACY, LEVEL 2 (226 TO 275)

About one in four adults are at Prose Level 2. They can locate a single piece of information when there is distracting information, and they can integrate, compare, and contrast information.



They can:

locate a single piece of information when there is distracting information or other information that seems plausible as the answer but is incorrect. They can also integrate, compare, or contrast two or more pieces of information.

They are likely to succeed at tasks such as:

- Underline meaning of a term given in government brochure on supplemental security income *(226)*
- Locate two features of information in a sports article *(250)*
- Interpret instructions from an appliance warranty *(275)* (See below)

EXAMPLE TASK

A manufacturing company provides its customers with the following instructions for returning appliances for service:

> When returning appliance for servicing, include a note telling as clearly and as specifically as possible what is wrong with the appliance.

A repair person for the company receives four appliances with the following notes attached. Circle the letter next to the note which best follows the instructions supplied by the company.

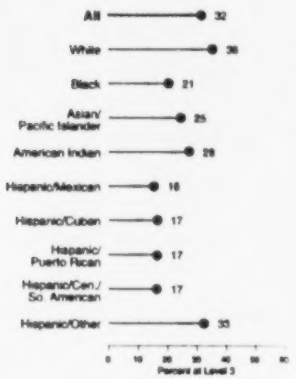
A. The clock does not run correctly on this clock radio. I tried fixing it, but I couldn't.

B. My clock radio is not working. It stopped working right after I used it for five days.

C. The alarm on my clock radio doesn't go off at the time I set. It rings 15-30 minutes later.

D. This radio is broken. Please repair and return by United Parcel Service to the address on my slip.

Three in 10 adults can match information in a text to that in the directive given to them, when some inference is required.



They can:

match information in the text and in the task when low level inferences are required, integrate information from dense or lengthy text, and generate a response based on information easily identified in the text.

They are likely to succeed at tasks such as:

- Write a brief letter explaining error made on a credit card bill *(288)*
- Read a news article and identify a sentence that provides interpretation of a situation *(304)*
- Read a lengthy article to identify behaviors that meet a stated condition *(316)*

EXAMPLE TASK

List two things that Chen became involved in or has done to help resolve conflicts due to discrimination.

IDA CHEN is the first Asian-American woman to become a judge of the Commonwealth of Pennsylvania.

She understands discrimination because she has experienced it herself.

Soft-spoken and eminently dignified, Judge Ida Chen prefers hearing about a new acquaintance rather than talking about herself. She wants to know about career plans, hopes, dreams, fears. She gives unsolicited advice as well as encouragement. She instills confidence.

Her father once hoped that she would become a professor. And she would have also made an outstanding social worker or guidance counselor. The truth is that Chen wears the caps of all these professions as a Family Court judge of the Court of Common Pleas of Philadelphia County, as a participant in public advocacy for minorities, and as a particularly sensitive, caring person.

She understands discrimination because she has experienced it herself. As an elementary school student, Chen tried to join the local Brownie troop. "You can't be a member," she was told. "Only American girls are in the Brownies."

Originally intent upon a career as a journalist, she selected Temple University because of its outstanding journalism department and affordable tuition. Independence being a personal need, she paid for her tuition by working for Temple's Department of Criminal Justice. There she had her first encounter with the legal world and it turned her career plans in a new direction — law school.

Through meticulous planning, Chen was able to earn her undergraduate degree in two and a half years and she continued to work three jobs. But when she began her first semester as a Temple law student in the fall of 1973, she was barely able to stay awake. Her teacher Lynne Abraham, now a Common Pleas Court judge herself, couldn't help but notice Chen yawning in the back of the class, and when she determined that this student was not a party animal but a workhorse, she arranged a teaching assistant's job for Chen on campus.

After graduating from Temple Law School in 1976, Chen worked for the U.S. Equal Employment Opportunity Commission where she was a litigator on behalf of plaintiffs who experienced discrimination in the workplace, and then moved on to become the first Asian-American to serve on the Philadelphia Commission on Human Relations.

Appointed by Mayor Wilson Goode, Chen worked with community leaders to resolve racial and ethnic tensions and also made time to contribute free legal counsel to a variety of activist groups.

The "Help Wanted" section of the newspaper contained an entry that aroused Chen's curiosity — an ad for a judge's position. Her application resulted in her selection by a state judicial committee to fill a seat in the state court. And in July of 1988, she officially became a judge of the Court of Common Pleas. Running as both a Republican and Democratic candidate, her position was secured when she won her seat on the bench at last November's election.

At Family Court, Chen presides over criminal and civil cases which include adult sex crimes, domestic violence, juvenile delinquency, custody, divorce and support. Not a pretty picture.

Chen recalls her first day as judge, hearing a juvenile dependency case — "It was a horrifying experience. I broke down because the cases were so depressing," she remembers.

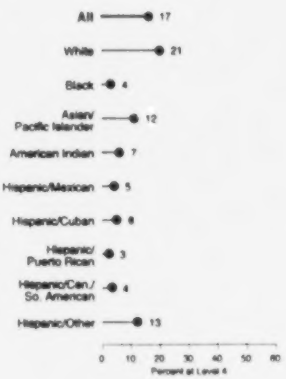
Outside of the courtroom, Chen has made a name for herself in resolving interracial conflicts, while glorying in her Chinese-American identity. In a 1986 incident involving the desecration of Korean street signs in a Philadelphia neighborhood, Chen called for a meeting with the leaders of that community to help resolve the conflict.

Chen's interest in community advocacy is not limited to Asian communities. She has been involved in Hispanic, Jewish and Black issues, and because of her participation in the Ethnic Affairs Committee of the Anti-Defamation League of B'nai B'rith, Chen was one of 10 women nationwide selected to take part in a mission to Israel.

With her recently won mandate to judicate in the affairs of Pennsylvania's citizens, Chen has pledged to work tirelessly to defend the rights of its people and contribute to the improvement of human welfare. She would have made a fabulous Brownie.

— Jessica Schultz

One in six adults can integrate and synthesize information from complex or lengthy passages and make more complex inferences.



They can:
match text with multiple features, integrate or synthesize information from complex or lengthy passages, and make more complex inferences.

They are likely to succeed at tasks such as:

- State in writing an argument made in a lengthy newspaper article *(328)*
- Contrast views expressed in two editorials on technologies available to make fuel-efficient cars *(359)* (See below)
- Compare two metaphors used in a poem *(374)*

EXAMPLE TASK

Contrast Dewey's and Hanna's views about the existence of technologies that can be used to produce more fuel-efficient cars while maintaining the size of the cars.

Face-Off: Getting More Miles Per Gallon

Demand cars with better gas mileage

By Robert Dewey
Guest columnist

WASHINGTON — Warning: Automakers are resurrecting their heavy-metal dinosaurs, aka gas guzzlers.

Government reports show that average new-car mileage has declined to 28.2 miles per gallon — the 1986 level. To reverse this trend, Congress must significantly increase existing gas-mileage standards.

More than half our Nobel laureates and 700 members of the National Academy of Sciences recently called global warming "the most serious environmental threat of the 21st century." In 1989, oil imports climbed to a near-record 46% of U.S. consumption. Increasing gas mileage is the single biggest step we can take to reduce oil imports and curb global warming. Greater efficiency also lowers our trade deficit (oil imports represent 40% of it) and decreases the need to drill in pristine areas.

Bigger engines and bigger cars mean bigger profits for automakers, who offer us the products they want us to buy. More than ever, Americans want products that have less of an environmental impact. But with only a few fuel-efficient cars to choose from, how do we find ones that meet all our needs?

Government studies show automakers have the technology to dramatically improve gas mileage — while maintaining the 1987 levels of comfort, performance and size mix of vehicles. Automakers also have the ability to make their products safer. The cost of these improvements will be offset by savings at the gas pump!

Cars can average 45 mpg and light trucks 35 mpg primarily by utilizing engine and transmission technologies already on a few cars today. Further improvements are possible by using technologies like the two-stroke engine and better aerodynamics that have been developed but not used.

When the current vehicle efficiency standards were proposed in 1974, Ford wrongly predicted that they "would require either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-subcompact to perhaps a Maverick." At that time, Congress required a 100% efficiency increase; raising gas mileage to 45 mpg requires only a 60% increase.

Americans want comfortable, safe and efficient cars. If automakers won't provide them, Congress must mandate them when it considers the issue this summer.

Let's hope lawmakers put the best interest of the environment and the nation ahead of the automakers' lobbyists and political action committees.

Robert Dewey is a conservation analyst for the Environmental Action Foundation.
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Don't demand end to cars people want

By Thomas H. Hanna
Guest columnist

DETROIT — Do Americans look forward to the day when they'll have to haul groceries, shuttle the kids to and from school or take family vacations in compact and subcompact cars?

I doubt it — which is why U.S. and import carmakers oppose the 40-miles-per-gallon to 45 mpg corporate average fuel economy mandates that some are pushing in Congress, either to curb tailpipe carbon dioxide emissions because of alleged global warming or for energy conservation.

Since the mid-1970s, automakers have doubled the fleet average fuel economy of new cars to 28 mpg — and further progress will be made.

Compact and subcompact cars with mileage of 40 mpg or better are now available, yet they appeal to only 5% of U.S. car buyers.

But to achieve a U.S. fleet average of 40 mpg to 45 mpg, carmakers would have to sharply limit the availability of family-size models and dramatically trim the size and weight of most cars.

There simply are not magic technologies to meet such a standard.

Almost every car now sold in the USA would have to be drastically downsized, and many would be obsolete.

As a result, Americans each year would be unable to buy the vehicles most suited for their needs: mid- and family-size models, luxury automobiles, mini-vans, small trucks and utility vehicles.

The fleet shift to compacts and subcompacts could also force the closing of assembly plants, supplier firms and dealerships, at a cost of thousands of U.S. jobs.

Although a growing number of scientists are skeptical of global warming, the issue deserves thorough international scientific evaluation, not premature unilateral U.S. action.

Carbon dioxide emissions from U.S. vehicles total less than 2.5% of worldwide "greenhouse" gases. Even doubling today's corporate average fuel economy for U.S. cars — if technically possible — would cut those gases about 5%.

Whatever the motivation — alleged global warming or energy conservation — the stakes are high for millions of Americans and thousands of U.S. jobs in unrealistic corporate average fuel economy mandates.

Thomas H. Hanna is president and chief executive officer of the Motor Vehicle Manufacturers Association of the United States.
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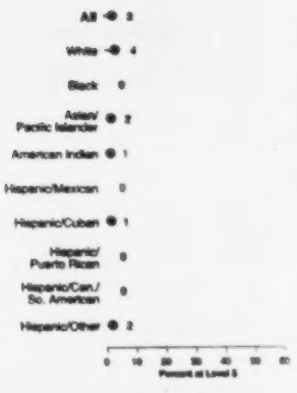
Just one in 33 adults can make high level inferences based on text and can find information in dense text with considerable distracting information that might seem plausible but is incorrect.



They can:
find information in a dense text that contains considerable information that is distracting — information that may seem plausible as an answer but is incorrect. Also, they can make high-level inferences or use specialized background knowledge.

They are likely to succeed at tasks such as:

- Compare the approaches stated in a narrative on growing up *(382)*
- Summarize two ways lawyers may challenge prospective jurors *(410)* (See below)
- Interpret a brief phrase from a lengthy news article *(423)*

EXAMPLE TASK

Identify and summarize the two kinds of challenges that attorneys use while selecting members of a jury.

DO YOU HAVE A QUESTION?

QUESTION: What is the new program for scheduling jurors?

ANSWER: This is a new way of organizing and scheduling jurors that is being introduced all over the country. The goals of this program are to save money, increase the number of citizens who are summoned to serve and decrease the inconvenience of serving.

The program means that instead of calling jurors for two weeks, jurors now serve only one day, or for the length of one trial if they are selected to hear a case. Jurors who are not selected to hear a case are excused at the end of the day, and their obligations to serve as jurors are fulfilled for three years. The average trial lasts two days once testimony begins.

An important part of what is called the One Day – One Trial program is the "standby" juror. This is a person called to the Courthouse if the number of cases to be tried requires more jurors than originally estimated. Once called to the Courthouse, the standby becomes a "regular" juror, and his or her service is complete at the end of one day or one trial, the same as everyone else.

Q. How was I summoned?

A. The basic source for names of eligible jurors is the Driver's License list which is supplemented by the voter registration list. Names are chosen from these combined lists by a computer in a completely random manner.

Once in the Courthouse, jurors are selected for a trial by this same computer and random selection process.

Q. How is the Jury for a particular trial selected?

A. When a group of prospective jurors is selected, more than the number needed for a trial are called. Once this group has been seated in the courtroom, either the Judge or the attorneys ask questions. This is called *voir dire*. The purpose of questions asked during *voir dire* is to ensure that all of the jurors who are selected to hear the case will be unbiased, objective and attentive.

In most cases, prospective jurors will be asked to raise their hands when a particular question applies to them. Examples of questions often asked are: Do you know the Plaintiff, Defendant or the attorneys in this case? Have you been involved in a case similar to this one yourself? Where the answer is yes, the jurors raising hands may be asked additional questions, as the purpose is to guarantee a fair trial for all parties. When an attorney believes that there is a legal reason to excuse a juror, he or she will challenge the juror for cause. Unless both attorneys agree that the juror should be excused, the Judge must either sustain or override the challenge.

After all challenges for cause have been ruled upon, the attorneys will select the trial jury from those who remain by exercising peremptory challenges. Unlike challenges for cause, no reason need be given for excusing a juror by peremptory challenge. Attorneys usually exercise these challenges by taking turns striking names from a list until both are satisfied with the jurors at the top of the list or until they use up the number of challenges allowed. Challenged jurors and any extra jurors will then be excused and asked to return to the jury selection room.

Jurors should not feel rejected or insulted if they are excused for cause by the Court or peremptorily challenged by one of the attorneys. The *voir dire* process and challenging of jurors is simply our judicial system's way of guaranteeing both parties to a lawsuit a fair trial.

Q. Am I guaranteed to serve on a jury?

A. Not all jurors who are summoned actually hear a case. Sometimes all the Judges are still working on trials from the previous day, and no new jurors are chosen. Normally, however, some new cases begin every day. Sometimes jurors are challenged and not selected.

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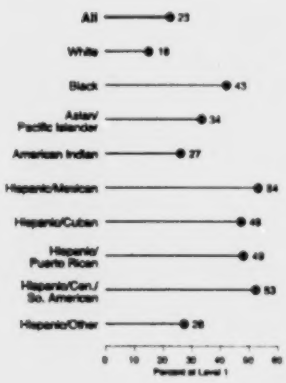
DOCUMENT LITERACY. LEVEL 1 (0 TO 225)

Almost one in four adults are at Level 1 in Document Literacy. They can match information and fill in personal information on forms.



They can:
locate a piece of information based on a literal match between the task and the document or enter information from personal knowledge onto a document. Little, if any, distracting information is present.*

They are likely to succeed at tasks such as:

- Sign their names *(69)*
- Locate time of meeting on a form *(180)*
- Use a pie graph to locate type of vehicle having specific sales *(214)*

* However, some were at the lower end of this level where they could not perform even these routine tasks.

EXAMPLE TASK

You have gone to an employment center for help in finding a job. You know that this center handles many different kinds of jobs. Also, several of your friends who have applied here have found jobs that appeal to you.

The agent has taken your name and address and given you the rest of the form to fill out. Complete the form so the employment center can help you get a job.

Birth date_____ Age____ Sex: Male____ Female____

Height_____ Weight_____ Health_____

Last grade completed in school_____

Kind of work wanted:

Part-time_____ Summer_____

Full-time_____ Year-round_____

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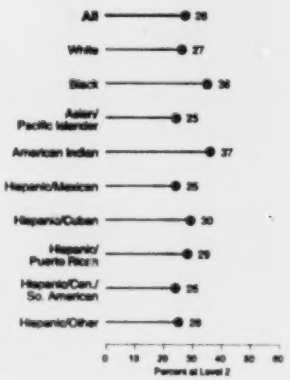
DOCUMENT LITERACY, LEVEL 2 (226 TO 275)

Almost three in 10 adults can match information in documents that contain distractors, and they can integrate information from several places in a document.



They can:
match a single piece of information, with distracting information present, or requiring a low level of inference. They may also integrate information from various parts of the document.

They are likely to succeed at tasks such as:
- Locate an intersection on a street map *(230)*
- Locate eligibility from table of employee benefits *(246)*
- Identify and enter background information on application for social security card *(259)*

EXAMPLE TASK

What is the gross pay for this year to date?

HOURS				PERIOD ENDING	REGULAR	OVERTIME	GROSS	DEF ANN	NET PAY
REGULAR	SICK	OVERTIME	TOTAL	03/15/85					
500			500	CURRENT	62500		62500		45988
				YEAR TO DATE			426885		

TAX DEDUCTIONS				
	FED W/H	STATE W/H	CITY W/H	FICA
CURRENT	10894	1375		3831
YEAR TO DATE	73498	8250		26167

OTHER DEDUCTIONS					
CR UNION		UNITED FD	PERS INS	MISC	MISC CODE

NON-NEGOTIABLE

OTHER DEDUCTIONS					
CODE	TYPE	AMOUNT	CODE	TYPE	AMOUNT
07	DEN	412			

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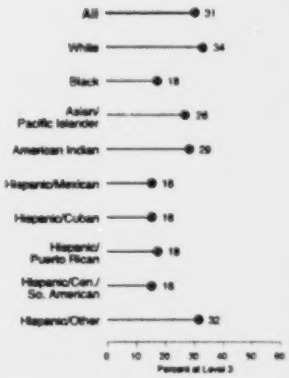
DOCUMENT LITERACY, LEVEL 3 (276 TO 325)

Three in 10 adults are at Level 3 in Document Literacy. They can integrate several pieces of information and deal with rather complex tables and graphs that contain information not pertaining to the task.



They can:

integrate several pieces of information from one or several documents and deal with rather complex tables or graphs which contain information that is irrelevant or inappropriate to the task.

They are likely to succeed at tasks such as:

- Identify information from bar graph depicting source of energy and year *(277)*
- Use sign out sheet to respond to call about resident *(298)*
- Enter information given into an automobile maintenance record form *(323)*

EXAMPLE TASK

You need to smooth wood in preparation for sealing and plan to buy garnet sandpaper. What type of sandpaper should you buy?

ABRASIVE SELECTION GUIDE

MATERIAL & OPERATION	PRODUCTION[3]					GARNET				WETORDRY[3]				FRE-CUT[4]		EMERY		
	EC	C	M	F	EF	C	M	F	EF	VF	EF	SF	UF	VF	EF	C	M	F
WOOD																		
Paint Removal	■	■				■												
Heavy Stock Removal			■				■											
Moderate Stock Removal				■				■										
Preparation for Sealing					■				■									
After Sealer											■				■			
Between Coats												■						
After Final Coat													■					
METAL																		
Rust and Paint Removal	■	■														■		
Light Stock Removal			■															
Preparation for Priming				■										■			■	
Finishing and Polishing					■					■								■
After Primer											■				■			
Between Coats												■						
After Final Coat													■					
PLASTIC & FIBERGLASS																		
Shaping	■	■																
Light Stock Removal			■															
Finishing & Scuffing				■	■					■				■				

EC = Extra Coarse C = Coarse M = Medium F = Fine VF = Very Fine EF = Extra Fine SF = Super Fine UF = Ultra Fine

SAFETY INFORMATION:

■ Wear approved safety goggles when sanding.

■ Use particle/dust mask or other means to prevent inhalation of sanding dust.

■ When using power tools, follow manufacturer's recommended procedures and safety instructions.

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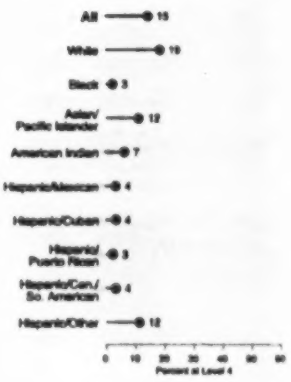
Almost one in seven adults are at Level 4. They can do tasks requiring greater inferences and involving more detailed information.



They can:

perform tasks that require them to draw higher level inferences and numerous responses without being told how many are needed. They can also perform tasks that contain conditional information.

They are likely to succeed at tasks such as:

- Identify the correct percentage meeting specified conditions from a table of such information *(342)*
- Use a bus schedule to determine appropriate bus for given set of conditions *(352)* (See below)
- Use a table of information to determine pattern in oil exports across years *(352)*

EXAMPLE TASK

On Saturday afternoon, if you miss the 2:35 bus leaving Hancock and Buena Ventura going to Flintridge and Academy, how long will you have to wait for the next bus?

A Until 2:57 p.m. **B** Until 3:05 p.m. **C** Until 3:35 p.m. **D** Until 3:57 p.m. **E** I don't know

ROUTE **5**

VISTA GRANDE

This bus line operates Monday through Saturday providing *"local service"* to most neighborhoods in the northeast section.
Buses run thirty minutes apart during the morning and afternoon rush hours Monday through Friday.
Buses run one hour apart at all other times of day and Saturday.
No Sunday, holiday or night service.

OUTBOUND
from Terminal

	Leave Downtown Terminal	Leave Hancock and Buena Ventura	Leave Citadel	Leave Rustic Hills	Leave North Crestview and Oro Blanco	Arrive Flintridge and Academy
AM	6:20	6:35	6:45	6:50	7:03	7:15
	6:50	7:05	7:15	7:20	7:33	7:45
	7:20	7:35	7:45	7:50	8:03	8:15
	7:50	8:05	8:15	8:20	8:33	8:45
	8:20	8:35	8:45	8:50	9:03	9:15
	8:50	9:05	9:15	9:20	9:33	9:45
	9:20	9:35	9:45	9:50	10:03	10:15
	10:20	10:35	10:45	10:50	11:03	11:15
	11:20	11:35	11:45	11:50	12:03	12:15
PM	12:20	12:35	12:45	12:50	1:03	1:15
	1:20	1:35	1:45	1:50	2:03	2:15
	2:20	2:35	2:45	2:50	3:03	3:15
	2:50	3:05	3:15	3:20	3:33	3:45
	3:20	3:35	3:45	3:50	4:03	4:15
	3:50	4:05	4:15	4:20	4:33	4:45
	4:20	4:35	4:45	4:50	5:03	5:15
	4:50	5:05	5:15	5:20	5:33	5:45
	5:20	5:35	5:45	5:50	6:03	6:15
	5:50	6:05	6:15	6:20	6:33	6:45
	6:20	6:35	6:45	6:50	7:03	7:15

INBOUND
toward Terminal

Leave Flintridge and Academy	Leave North Crestview and Oro Blanco	Leave Rustic Hills	Leave Citadel	Leave Hancock and Buena Ventura	Arrive Downtown Terminal	
6:15	6:27	6:42	6:47	6:57	7:15	
6:45	6:57	7:12	7:17	7:27	7:45	Monday through Friday only
7:15	7:27	7:42	7:47	7:57	8:15	
7:45	7:57	8:12	8:17	8:27	8:45	Monday through Friday only
8:15	8:27	8:42	8:47	8:57	9:15	
8:45	8:57	9:12	9:17	9:27	9:45	Monday through Friday only
9:15	9:27	9:42	9:47	9:57	10:15	
9:45	9:57	10:12	10:17	10:27	10:45	Monday through Friday only
10:15	10:27	10:42	10:47	10:57	11:15	
11:15	11:27	11:42	11:47	11:57	12:15	
12:15	12:27	12:42 p.m.	12:47 p.m.	12:57 p.m.	1:15 p.m.	
1:15	1:27	1:42	1:47	1:57	2:15	
2:15	2:27	2:42	2:47	2:57	3:15	
3:15	3:27	3:42	3:47	3:57	4:15	
3:45	3:57	4:12	4:17	4:27	4:45	Monday through Friday only
4:15	4:27	4:42	4:47	4:57	5:15	
4:45	4:57	5:12	4:17	5:27	5:45	Monday through Friday only
5:15	5:27	5:42	5:47	5:57	6:15	
5:45	5:57	6:12	6:17	6:27	6:45	Monday through Friday only
						Monday through Friday only

You can transfer from this bus to another headed anywhere else in the city bus system

To be sure of a smooth transfer tell the driver of this bus the name of the second bus you need

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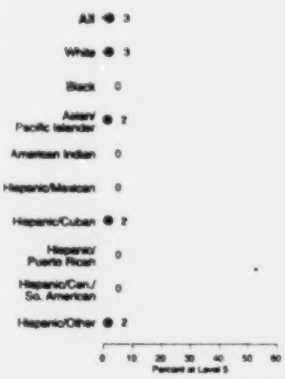
DOCUMENT LITERACY, LEVEL 5 (376 TO 500)

One in 33 adults are at Document Level 5. They can use complex documents that contain distracting information and make high level inferences.



They can:
search through complex displays that contain several pieces of distracting information, make high level inferences from the text, and make use of specialized knowledge.

They are likely to succeed at tasks such as:

- Use information in a table to complete a graph including labeling axes *(378)*
- Use a table to compare credit cards; Identify the two categories used and write two differences between them *(387)*
- Use a table depicting information about parental involvement in a school survey to write a paragraph summarizing the extent to which parents and teachers agree *(395)* (See below)

EXAMPLE TASK

Using the information in the table, write a brief paragraph summarizing the extent to which parents and teachers agreed or disagreed on the statements about issues pertaining to parental involvement at their school.

Parents and Teachers Evaluate Parental Involvement at Their School

Do you agree or disagree that . . . ?

	Total	Level of School		
		Elementary	Junior High	High School
		percent agreeing		
Our school does a good job of encouraging parental involvement in sports, arts, and other nonsubject areas				
Parents	77	76	74	79
Teachers	77	73	77	85
Our school does a good job of encouraging parental involvement in educational areas				
Parents	73	82	71	64
Teachers	80	84	78	70
Our school only contacts parents when there is a problem with their child				
Parents	55	46	62	63
Teachers	23	18	22	33
Our school does not give parents the opportunity for any meaningful roles				
Parents	22	18	22	28
Teachers	8	8	12	7

Source: The Metropolitan Life Survey of the American Teacher, 1987

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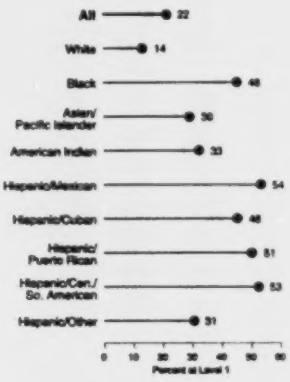
QUANTITATIVE LITERACY, LEVEL 1 (0 TO 225)

Over one in five adults are at Quantitative Literacy Level 1. They can perform single, relatively simple operations.



They can:

perform a single, relatively simple arithmetic operation, such as addition. The numbers to be used are provided, and the operation to be performed is specified.*

They are likely to succeed at tasks such as:

- Total a bank deposit entry *(191)* (See below)

* Level 1 is from 0 to 225; some are at the lower end of this level where they cannot perform even these routine tasks.

EXAMPLE TASK

You wish to use the automatic teller machine at your bank to make a deposit. Figure the total amount of the two checks being deposited. Enter the amount on the form in the space next to TOTAL.

Availability of Deposits

Funds from deposits may not be available for immediate withdrawal. Please refer to your institution's rules governing funds availability for details.

Crediting of deposits and payments is subject to verification and collection of actual amounts deposited or paid in accordance with the rules and regulations of your financial institution.

PLEASE PRINT

YOUR MAC CARD NUMBER (No PINs PLEASE)
111 222 3334

YOUR FINANCIAL INSTITUTION
Union Bank

YOUR ACCOUNT NUMBER
987 555 674

YOUR NAME
Chris Jones

CHECK ONE ☐ DEPOSIT or ☐ PAYMENT

CASH	$	00
LIST CHECKS BY BANK NO.	ENDORSE WITH NAME & ACCOUNT NUMBER	
	557	19
	75	00
TOTAL		

DO NOT DETACH TICKET

DO NOT FOLD NO COINS OR PAPER CLIPS PLEASE

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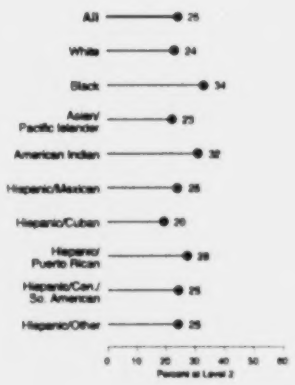
One in four adults are at Level 2. They can perform an arithmetic operation using numbers given to them or easily located in the material.



They can:

perform a single arithmetic operation using numbers that are given in the task or easily located in the material. The operation to be performed is either described in the task or easily determined from the format of the material (for example, an order form).

They are likely to succeed at tasks such as:

- Calculate postage and fees for certified mail *(238)*
- Determine the difference in price between tickets for two shows *(246)* (See below)
- Calculate the total costs of purchase from an order form *(270)*

EXAMPLE TASK

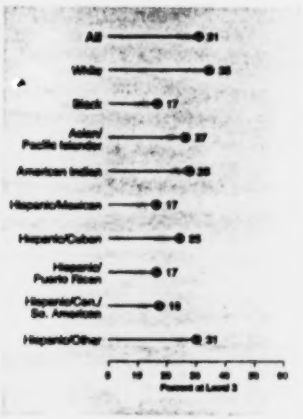
The price of one ticket and bus for "Sleuth" costs how much less than the price of one ticket and bus for "On the Town"?

THEATER TRIP

A charter bus will leave from the bus stop (near the Conference Center) at 4 p.m., giving you plenty of time for dinner in New York. Return trip will start from West 45th Street directly following the plays. Both theaters are on West 45th Street. Allow about 1½ hours for the return trip.

Time:	4 p.m., Saturday, November 20		
Price:	"On the Town"	Ticket and bus	$11.00
	"Sleuth"	Ticket and bus	$8.50
Limit:	Two tickets per person		

Three in 10 of all adults are at Level 3. They can solve problems with two or more numbers that must be found in printed material.



They can:
perform tasks where two or more numbers are typically needed to solve the problem, and these must be found in the material. The operation(s) needed can be determined from the arithmetic relation terms used in the question or directive.

They are likely to succeed at tasks such as:

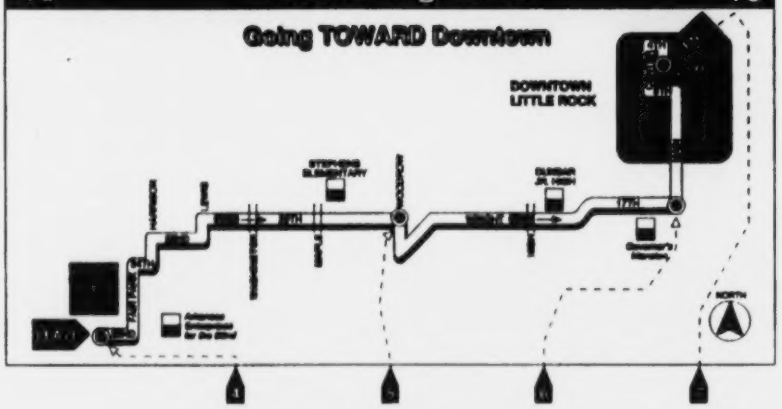
- Use calculator to calculate differences between regular and sale price from an advertisement *(278)*
- Use calculator to determine the discount from an oil bill if paid within 10 days *(308)*
- Calculate miles per gallon using information given on mileage record chart *(321)*

EXAMPLE TASK

Suppose that you took the 12:45 p.m. bus from U.A.L.R. Student Union to 17th and Main on a Saturday. According to the schedule, how many minutes is the bus ride?

16 South Highland 16

Going TOWARD Downtown



	BUS LEAVES from U.A.L.R. Student Union	Bus arrives at 20th & Woodrow	Bus arrives at 17th & Main	BUS ENDS at Capitol & Louisiana
WEEKDAYS				
A.M.	5:36	5:51	6:00	6:09
	6:11	6:25	6:35	6:45
	6:41	6:55	7:05	7:15
	7:11	7:25	7:35	7:45
	7:41	7:55	8:05	8:15
	8:11	8:25	8:35	8:45
	8:41	8:55	9:05	9:15
	9:14	9:27	9:36	9:45
	9:44	9:57	10:06	10:15
	10:14	10:27	10:36	10:45
	10:44	10:57	11:06	11:15
	11:14	11:27	11:36	11:45
	11:44	11:57	12:06	12:15
P.M.	12:14	12:27	12:36	12:45
	12:44	12:57	1:06	1:15
	1:14	1:27	1:36	1:45
	1:44	1:57	2:06	2:15
	2:14	2:27	2:36	2:45
	2:44	2:57	3:06	3:15
	3:14	3:27	3:36	3:45
	3:43	3:56	4:05	4:15
	4:13	4:26	4:36	4:45
	4:43	4:56	5:05	5:15
	5:13	5:26	5:35	5:45
	5:45	5:58	6:07	6:17
	6:11	6:22	6:30	–
	6:46	6:57	7:06	–
SATURDAY				
A.M.	5:36	5:51	6:00	6:09
	6:45	6:57	7:06	7:15
	7:45	7:57	8:06	8:15
	8:45	8:57	9:06	9:15
	9:45	9:57	10:06	10:15
	10:45	10:57	11:06	11:15
	11:45	11:57	12:06	12:15
P.M.	12:45	12:57	1:06	1:15
	1:45	1:57	2:06	2:15
	2:45	2:57	3:06	3:15
	3:45	3:57	4:06	4:15
	4:45	4:57	5:06	5:15
	5:45	5:57	6:06	6:15
	6:44	6:56	7:06	–

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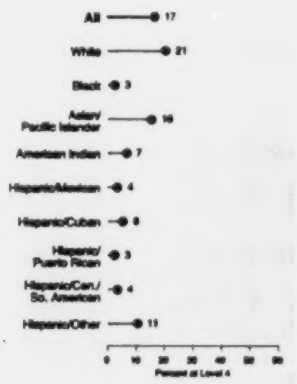
QUANTITATIVE LITERACY, LEVEL 4 (326 TO 375)

One in six of all adults are at Level 4 in Quantitative Literacy and can handle two or more arithmetic operations in sequence.



They can:

perform two or more operations in sequence or a single operation in which the quantities are found in different types of displays, or where the operations must be inferred from the information given or from prior knowledge.

They are likely to succeed at tasks such as:

- Determine correct change using information in a menu *(331)*
- Use information stated in news article to calculate amount of money that should go to raising a child *(350)*
- Use the eligibility pamphlet to calculate the yearly amount a couple would receive for basic supplemental security income *(368)*

EXAMPLE TASK

Estimate the cost per ounce of the creamy peanut butter. Write your estimate on the line provided.

Unit price	You pay
11.8¢ per oz.	1.89
rich chnky pnt bt	
10693	16 oz.

Unit price	You pay
1.59 per lb.	1.99
creamy pnt butter	
10732	20 oz.

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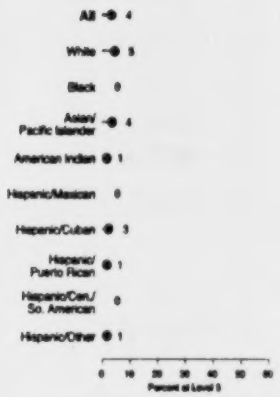
One in 25 of all adults perform at Quantitative Level 5. They can perform multiple arithmetic operations sequentially.



They can:
perform multiple operations sequentially. They can also find the features of problems embedded in the text or rely on background knowledge to determine the quantities or operations needed.

They are likely to succeed at tasks such as:

- Determine shipping and total costs on an order form for items in a catalog *(382)*
- Use information in news article to calculate difference in times for completing a race *(405)*
- Use a calculator to determine the total cost of carpet to cover a room *(421)*

EXAMPLE TASK

You need to borrow $10,000. Find the ad for Home Equity Loans on page 2 in the newspaper provided. Explain to the interviewer how you would compute the total amount of interest charges you would pay under this loan plan. Please tell the interviewer when you are ready to begin.

FIXED RATE • FIXED TERM

HOME EQUITY LOANS

14.25%
Annual Percentage Rate
Ten Year Term

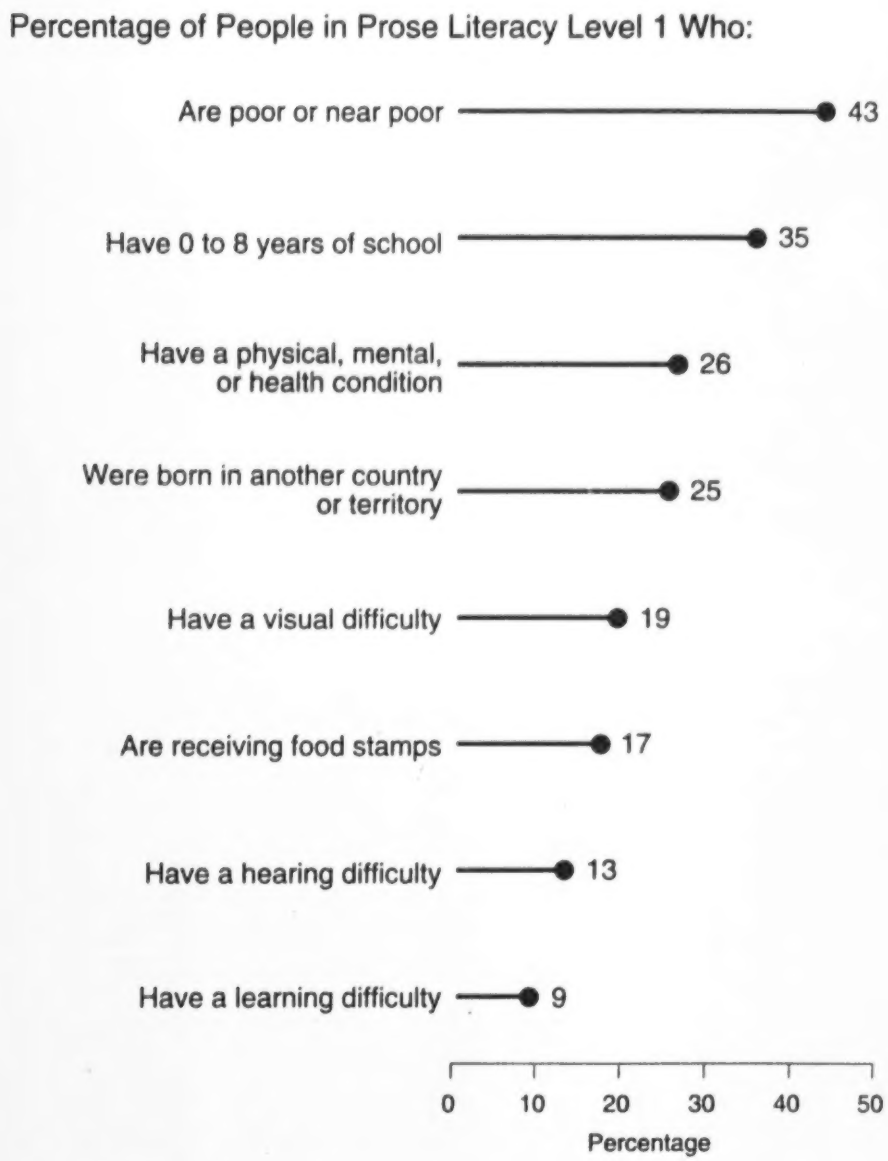
SAMPLE MONTHLY REPAYMENT SCHEDULE

Amount Financed	Monthly Payment
$10,000	$156.77
$25,000	$391.93
$40,000	$627.09

120 Months 14.25% APR

LIMITING PHYSICAL OR MENTAL CONDITIONS AMONG ADULTS IN THE LEVEL 1 POPULATION

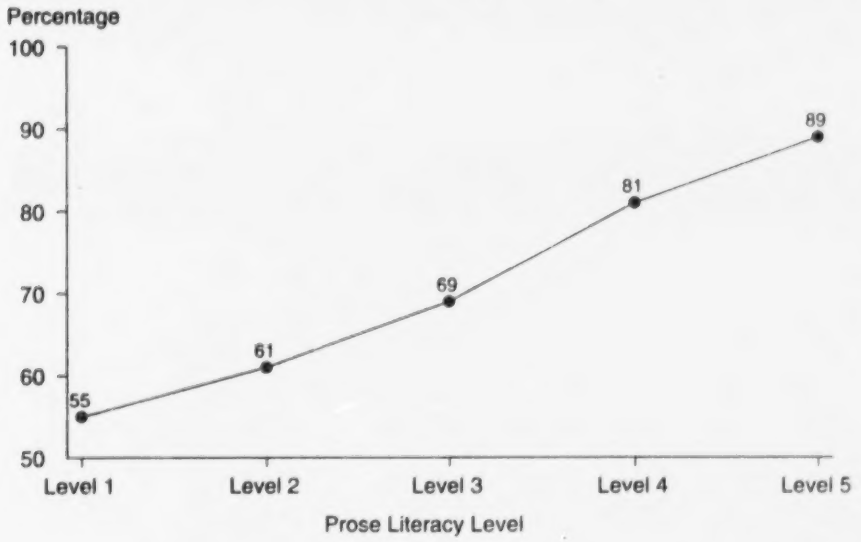
Among 40 million adults in the lowest prose literacy level (Level 1), one in four have some kind of physical or mental condition that may impair their literacy proficiency, or make improvement more difficult.



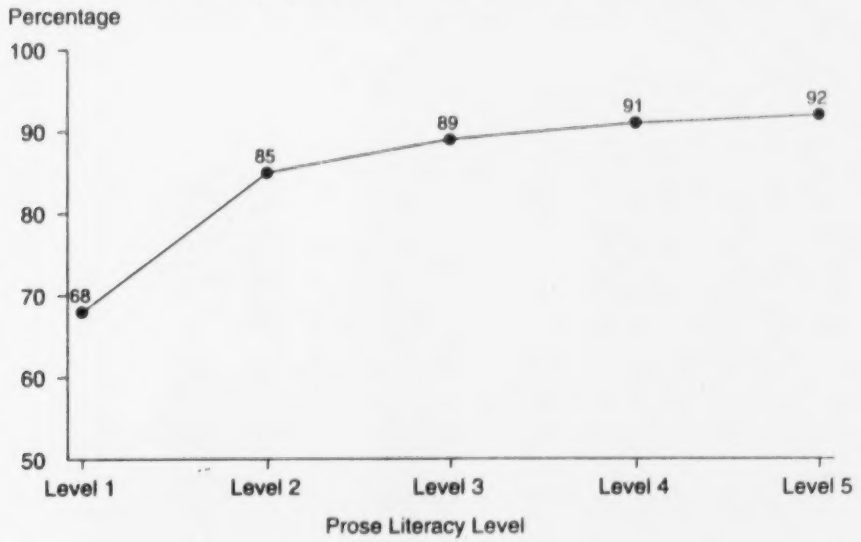
Note: An individual can fall into more than one category.

Literacy and the exercise of citizenship in a democracy are related. Higher levels of literacy go hand-in-hand with voting or obtaining information from newspapers and magazines.

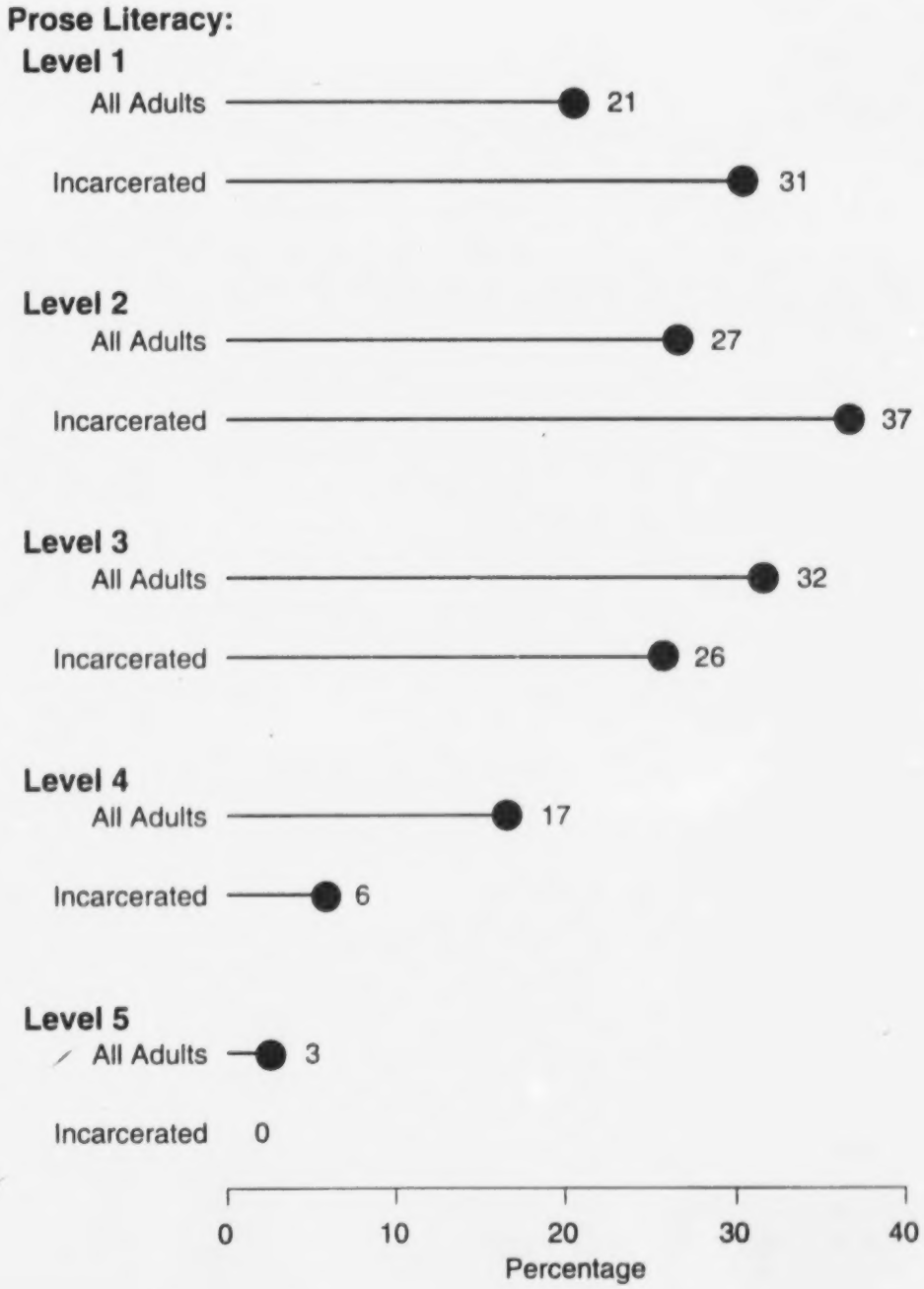
Percentage of Adults Who Voted in a National or State Election in the Past Five Years, by Literacy Level



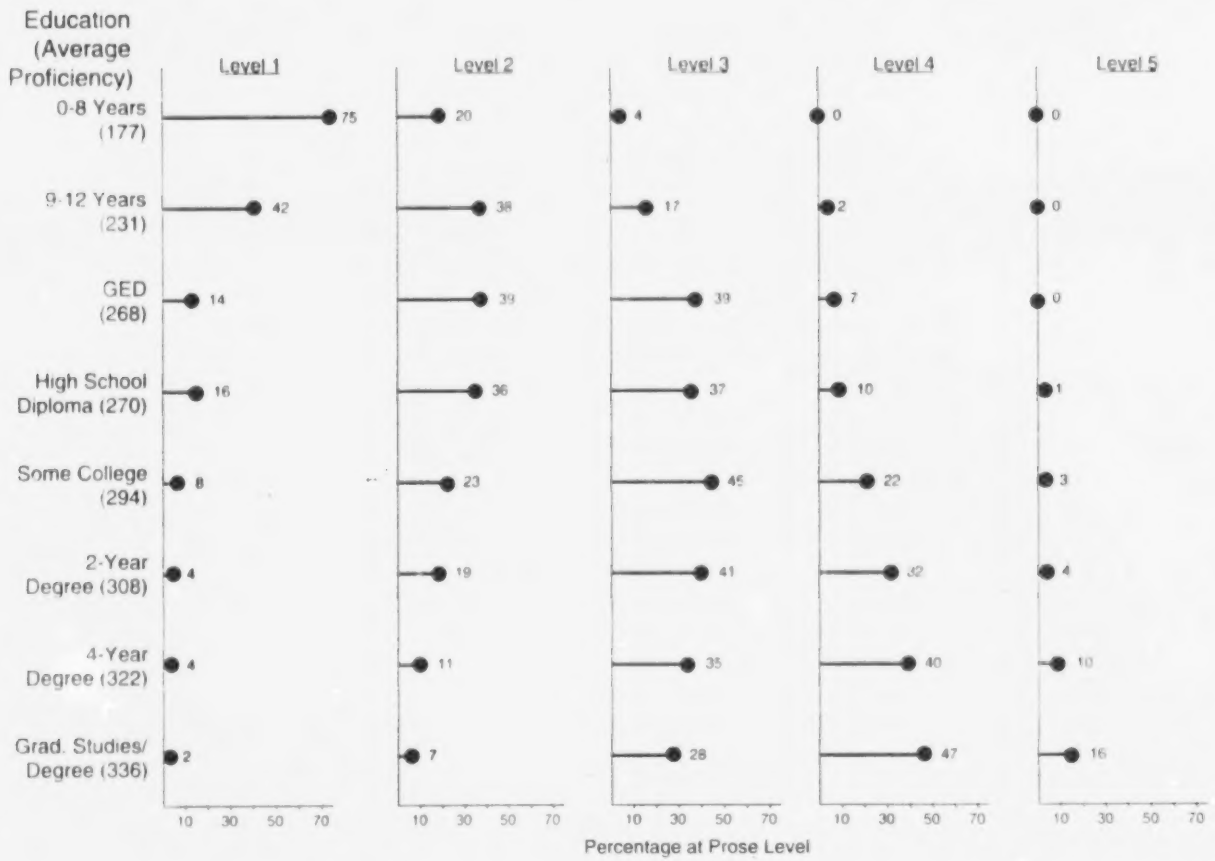
Percentage of Adults Who Get Information about Current Events from Newpapers and Magazines, by Literacy Level



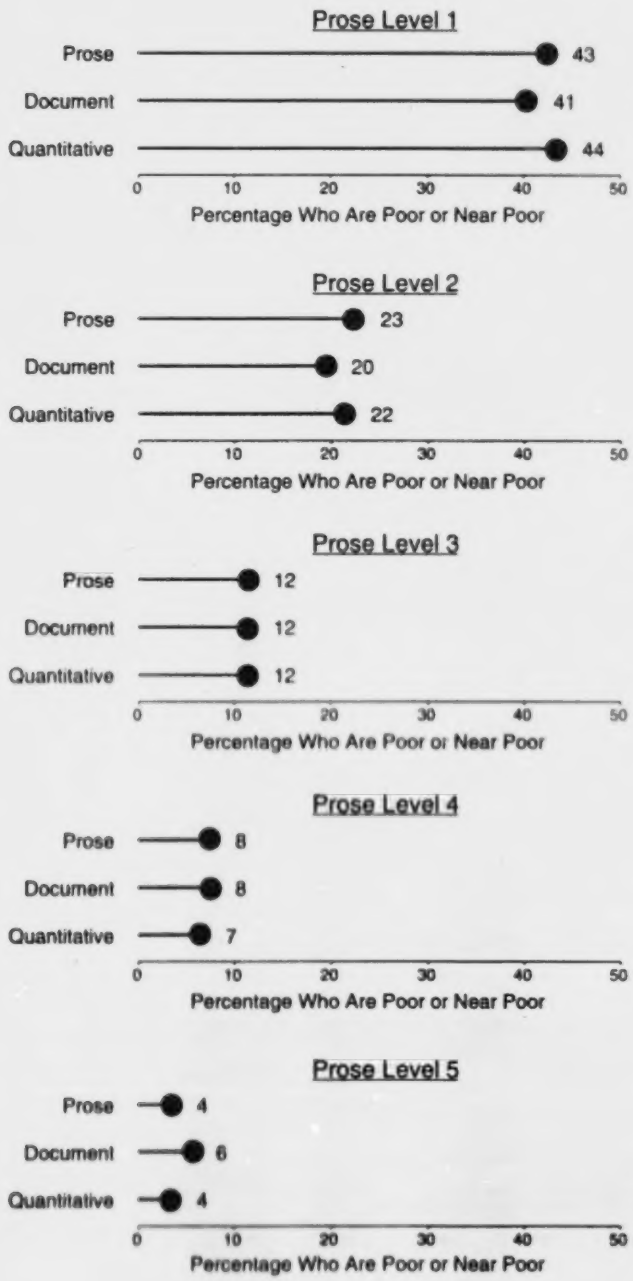
The prison population is considerably less literate than the general population. Almost seven in 10 prisoners are in Levels 1 and 2 of Prose Literacy, compared with less than half of the general population.



Prose proficiency rises with education level. Three-fourths of adults with between zero and eight years of school are in Level 1, as are four in 10 high school dropouts. Over 75 percent of two-year college graduates, and 85 percent of four-year college graduates, reach at least Level 3. However, just 4 and 10 percent, respectively, reach Level 5.

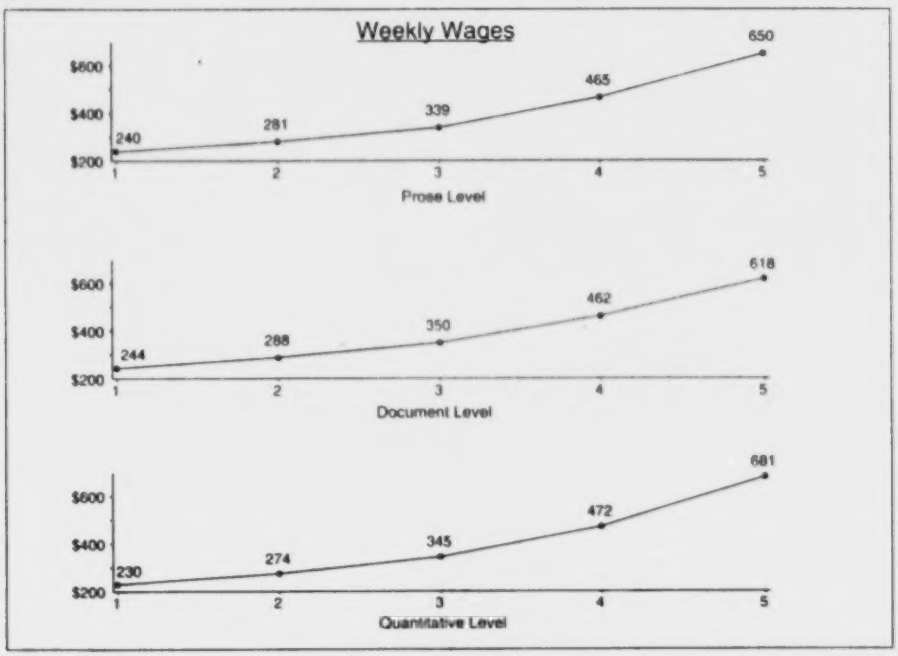


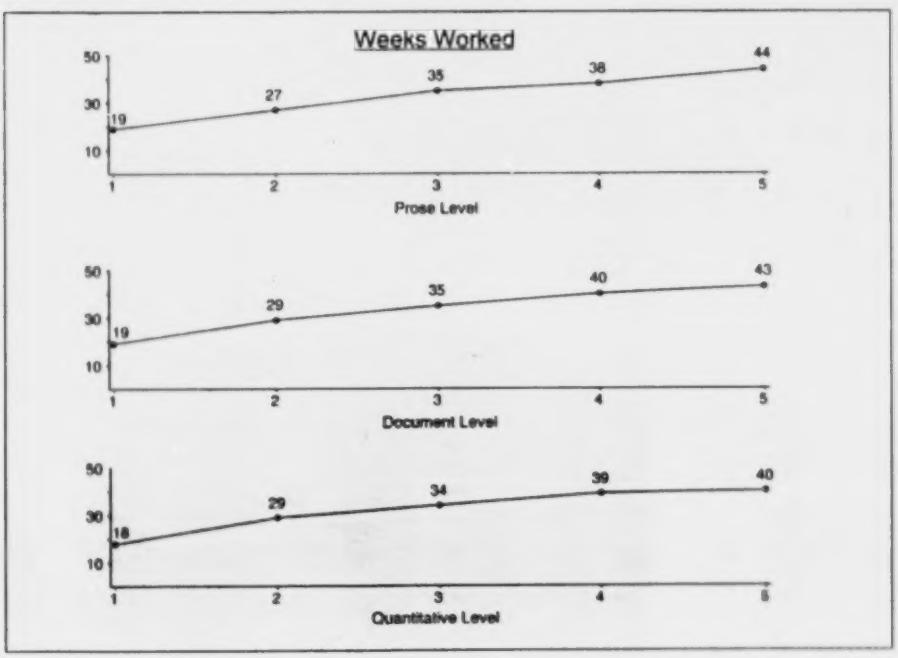
Poverty and literacy are closely related: 43 percent of adults in Prose Level 1 are poor or near poor, compared with just 4 percent in Level 5.



LITERACY AND WEEKLY WAGES

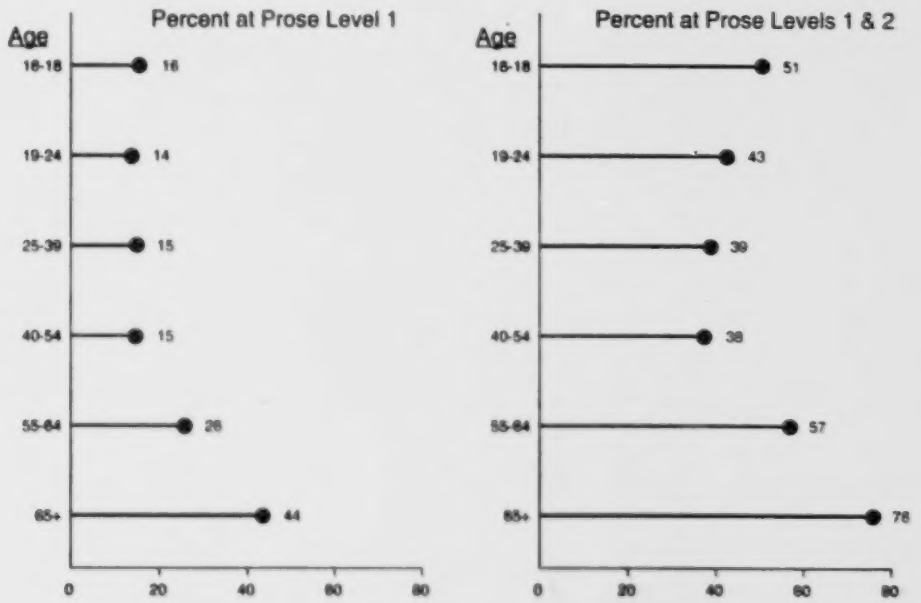
Weekly wages and weeks worked per year rise with literacy level: Adults in Prose Level 5 earn 2 1/2 times adults in Level 1, and work more than twice as many weeks.

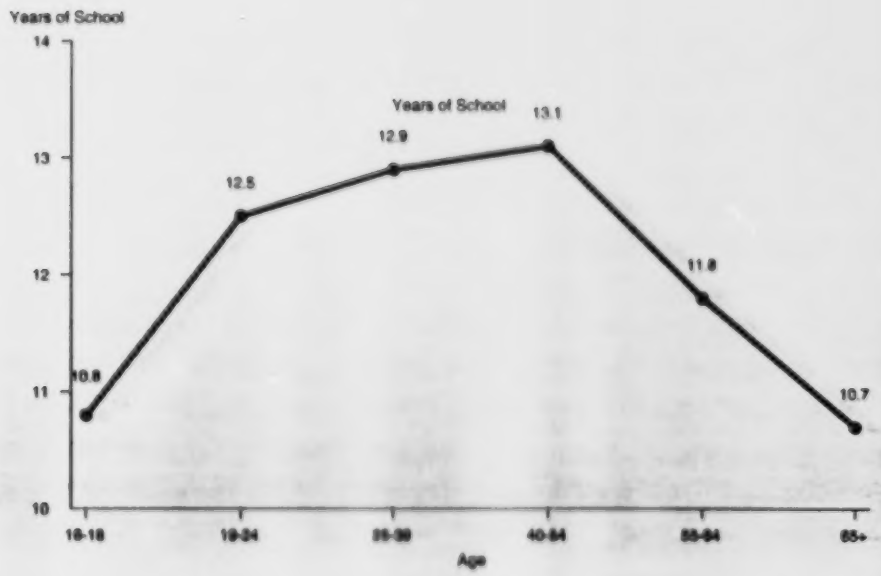




LITERACY AND AGE

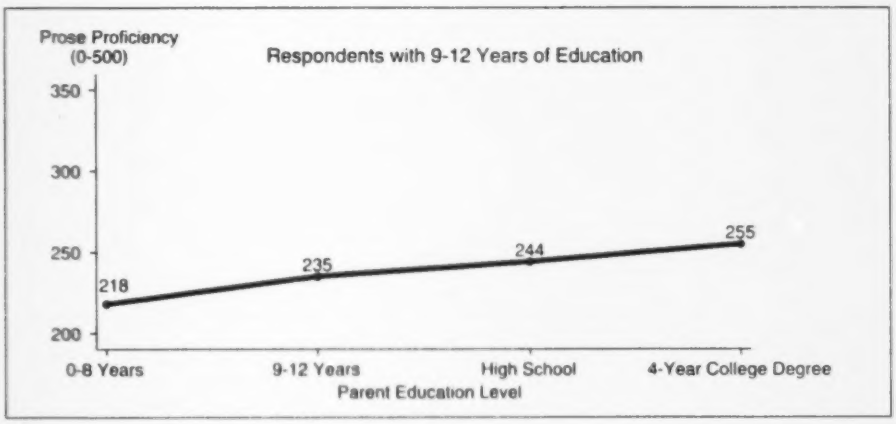
While fewer middle-age adults have low literacy levels than young adults, older adults are considerably less literate. However, older adults also have less education than middle-age or young adults.

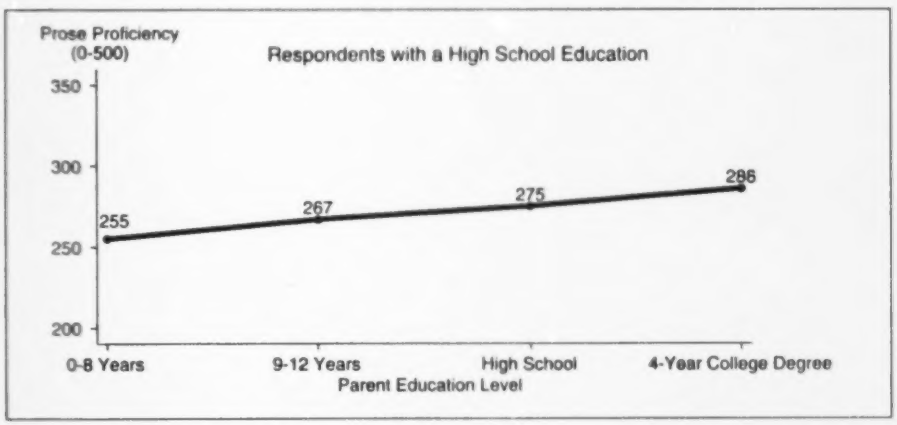


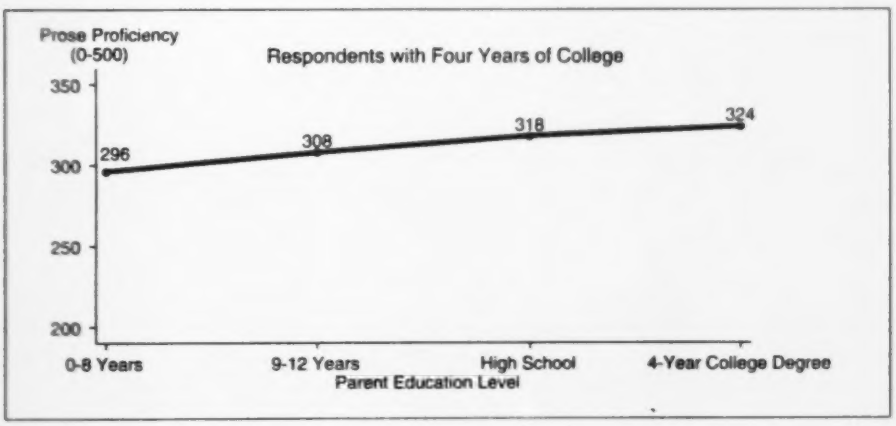


LITERACY AND PARENTS' EDUCATION

Parents' education greatly influences the literacy proficiency levels reached by their children. Even among respondents with similar levels of education, those with better educated parents have higher prose literacy proficiencies.*

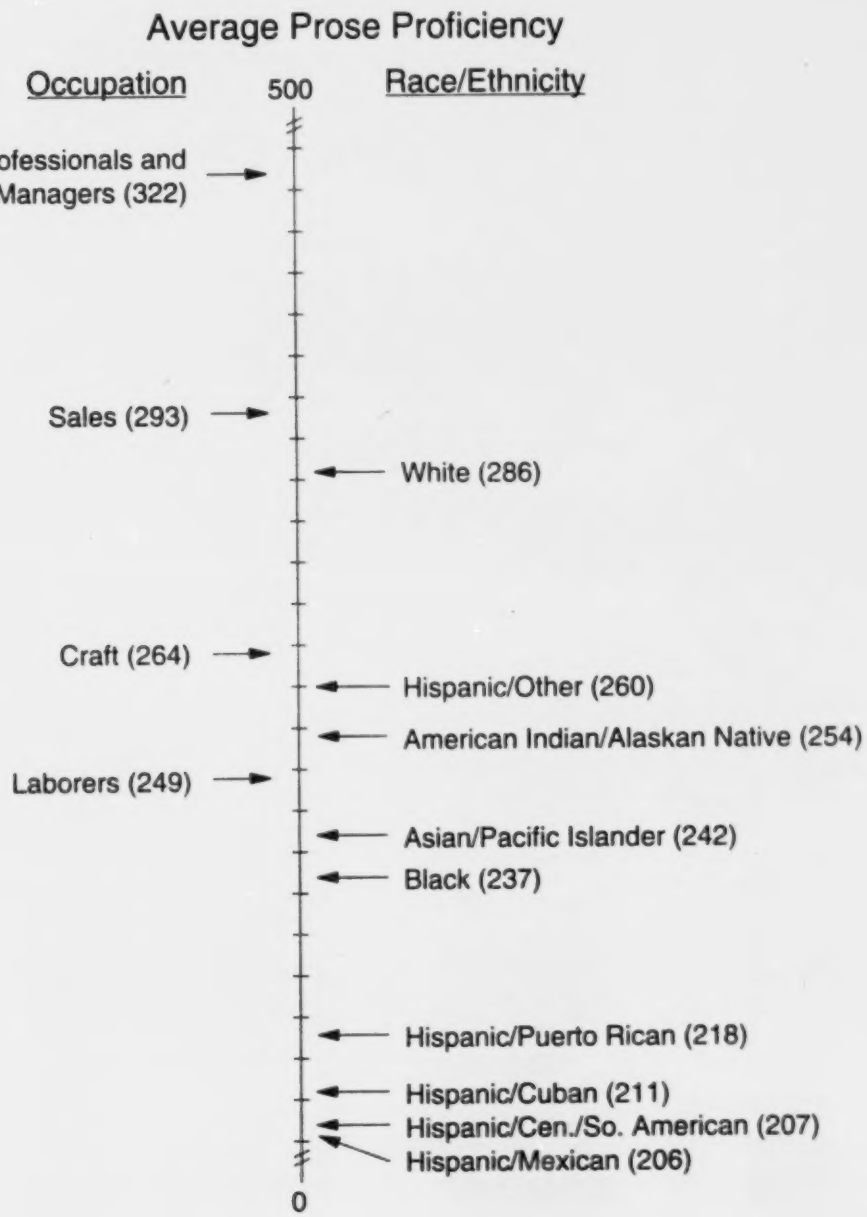






* Also true for Document and Quantitative Literacy

The average prose proficiency of Black, Asian, Hispanic/Puerto Rican, Hispanic/Cuban, Hispanic/Central and South American, and Hispanic/Mexican adults is lower than the average proficiency of all laborers.



While the more than forty million Americans performing in Level 1 on all three scales are a diverse group, they are characterized in the NCES report, *Adult Literacy in America*, as at best performing "simple, routine tasks involving brief and uncomplicated texts and documents." Others in Level 1 were described as "unable to perform these types of tasks, and some had such limited skills that they were unable to respond to much of the survey." Current literacy programs are trying to reach this group, primarily individuals who can hardly read at all. Others in this group do display limited literacy skills.

Some idea of how low these proficiencies are can be gained by a comparison with the average proficiency of laborers, where, among the occupations, literacy demands are the lowest. That average of 249 is considerably higher than even those in the top of Level 1.

When designing literacy programs, it is important to remember that many adults in the lowest literacy level are able to decode the printed word — able to read. Their literacy skills are so limited, however, that they may need help to function satisfactorily in even the least demanding of occupations.

It is also important to keep in mind that they are likely to have other difficulties, or that they are dealing with more than one life problem. More than four in 10 are poor or near poor; one in four has a physical, mental or health condition; and one in five has a visual difficulty.

Another 50 million adults are in Level 2. They are characterized in the *Adult Literacy in America* report as "generally able to locate information in text, to make low-level inferences using printed materials, and to integrate easily identifiable information. Further, they demonstrated the ability to perform quantitative tasks that involve a single operation where the numbers are either stated or can be easily found in text."

It cannot be said that these individuals are unable to read, as some reported after the release of *Adult Literacy in America*. But, as this report stated, they "were much less likely to respond correctly to the more challenging literacy tasks in the assessment — those requiring higher-level reading and problem-solving skills. In particular, they were apt to experience considerable difficulty in performing tasks that required them to integrate or synthesize information from complex or lengthy texts or to perform quantitative tasks that involved two or more sequential operations in which the individual had to set up the problem."

The Level 2 range of scores (226 to 275) encompasses the average proficiencies of adults in laborer and craft occupations (although many in these groups exceed the 275 level). Also, 29 percent of sales workers score in the Level 2 range. The question for them is whether they are vulnerable to changes in industry that would require the more advanced proficiencies characteristic of Level 3, or whether they should seek training and education that would make them less vulnerable in an era of downsizing and constantly changing labor markets.

There are, however, limits to what we can conclude about the literacy needs of adults. The National Adult Literacy Survey was the most complete and comprehensive literacy survey made in the United States, and perhaps anywhere. But it was not a study of the levels needed to perform particular jobs, or to be competent consumers, or to function in particular contexts. That would be a very useful companion effort; we would then be able to place occupations or other life activities on the three scales and be able to compare people's proficiencies with the literacy needs and requirements of these occupations.

Although we lack this type of information, there is much we can see clearly from this national assessment about the consequences of lower literacy proficiencies. We can see that this low level proficiency is not uniformly spread throughout the population, and that some populations are much more at risk of low wages and employment difficulty. They are also less likely to participate in community, society, and the political system than others. While one in five adults are at Prose Level 1, this is true for over half of most of the Hispanic subgroups and almost two in five Black adults. This contrasts with one in seven White adults.

While one in four White adults are at prose Level 2, 37 percent of Black, 39 percent of American Indian, and 32 percent of Hispanic/Puerto Rican adults are at this level. Three out of four, or more, of some minority populations are at Levels 1 and 2. These much lower literacy levels are a serious obstacle to achieving economic parity and equal participation in the

society. While we do not know the literacy requirements of particular activities from this large scale assessment, we do know that there is a very close relationship between literacy proficiency and success in a variety of pursuits, as can be seen in the pages of this report.

- Over two in five adults in Prose Level 1 are poor or near poor, as are over one in five who are in Level 2. Only one in 20 in Level 5 are poor or near poor.

- The average weekly wages of those in Prose Level 1 are $240, compared to $281 in Level 2, $339 in Level 3, $465 in Level 4, and $650 in Level 5.

- Forty-five percent of those in Prose Level 1 have not voted in a state or national election during the previous five years, compared to 11 percent in Level 5.

These, and other demonstrated relationships in the full report, established clearly that literacy proficiency serves as a currency in economic society, a comparison made by the study director, Irwin S. Kirsch. The more literacy you have, the greater the economic success, and the greater the participation in the political system. This is a matter on which the data from the survey are unequivocal.

While our greatest concern is with increasing this currency in the lower level literacy groups, the benefits of increasing literacy proficiency are demonstrable for the higher groups as well. Improving literacy is not solely a matter of fighting poverty and dependence. The definition of literacy for this assessment was not only to "function in society," but also "to achieve one's goals," and "to develop one's knowledge and potential." That requires continued opportunity to increase one's literacy, and to advance in occupation, income, and other aspects of life.

While formal education is related to increased literacy as shown in this and other surveys, literacy skills play a powerful role in improving educational opportunities. Those who read a lot in school are better readers; adults regularly engaged with the printed word are more literate. And literacy increases for years after formal schooling is completed, pointing to how use begets proficiency. Those who continue to read and grow will not lament as did Samuel Johnson: "In my early years I read very hard. It is a sad reflection, but a true one, that I knew almost as much at eighteen as I do now."

The findings of this literacy survey are not just for policymakers and program designers then; they should speak to individuals, both about the power of being highly literate, and the personal practices associated with getting there. One in five adults who scored in Prose Level 1 say they never read the newspaper — true of only 1 percent in Levels 4 and 5.

While the amount of schooling correlates, as expected, with literacy levels, literacy varies widely among people with the same number of years of schooling. This is both because the quality of their schooling varies and because some continue to learn in life, while others do not. Whichever, the practice of expressing adult literacy in terms of school grade equivalents is a prevalent but highly misleading practice. Having gone to school a year at a time, it seems that people — those in education, in policy, in executive positions, in creating literacy programs, and using literacy tests — can think only in terms of grade equivalents. Let's look at the prose skills of those who graduated from high school, but went no further:

16% are in Level 1
36% are in Level 2
37% are in Level 3
10% are in Level 4
1% are in Level 5

When people speak of a 12th grade literacy level, what can that possibly convey? True, it takes a shift in thinking to embrace measured literacy proficiency, as done in this assessment, and to use levels and scale scores to describe performance, but not to do so leads to wrong answers and misguided policy. As we said at the outset, to work in this field one must take some time to become literate about literacy.

The difference between school-based measures of reading and the profiles of adult literacy used in this survey goes beyond even the two factors cited above. Typical instruction in school reading is centered on decoding words and simply comprehending what is read, usually literature. Literacy in adult life means considerably more than that. The printed word is constantly serving up problems to solve in negotiating all aspects of life. We can't use the results of this literacy survey to measure the quality of schooling until schools are teaching, more directly, what such literacy surveys are measuring.

This difference between school reading

achievement and life literacy skills can be illustrated using data collected in 1985 in the Young Adult Literacy Survey, also carried out by Educational Testing Service, with a grant from the National Center for Education Statistics. That survey used the same definition of literacy, and the same three scales, as the current one. In addition, however, young adults were also given the in-school reading assessment used by the National Assessment of Educational Progress (NAEP) for 11th graders. The results can be compared. NAEP, at that time, defined "adept" readers as those with scale scores around 300 (on a 0 to 500 scale). Adept readers are *good* school readers who

> can understand complicated literary and informational passages . . . they can also analyze and integrate less familiar materials and provide reactions to and explanations of the text as a whole.

A band of readers around the adept level, those scoring from 275 to 325 on the NAEP scale, could also be assessed on the document scale. While 48 percent of these good NAEP readers scored from 275 to 325, the rest were widely dispersed. Twenty-three percent scored below the 275 level, where only relatively simple tasks can be performed, such as locating information on a pay stub, entering data on a deposit slip, and matching items on a shopping list to coupons. Only about 12 percent scored up at the top of the document literacy scale (350 or higher), succeeding at complex literacy tasks.

It is no wonder that schools often turn out graduates they think meet reading standards, while employers (or prospective employers) of some of these same students find them grossly deficient at the literacy tasks demanded by the workplace. The schools and the employers are not talking about the same kinds of tasks or competencies.

The question we need to address is where the responsibility should lie for instilling this broader view of literacy, and how communication between schools and employers can be improved. Further, the training provided to new employees in America is about the most meager of the countries with which we compete. That is also part of the literacy problem in America.

•••

This first comprehensive assessment of the literacy skills of adults in the U.S. is a giant step in creating the knowledge base for moving toward the goal set by the President and the governors in 1989, that all Americans will be literate by the year 2000. Beyond that we need to spend some time making our own judgments about what this mass of data means . . . as individual citizens, as educational institutions, as employers, and as public officials. Now that we know the literacy proficiency of individuals, we need to know more about such things as the literacy requirements of jobs and what is needed to be a competent consumer. This too can be gleaned from applying existing techniques such as job literacy analysis.

Literacy does not come easily. And a comprehensive survey of our state of literacy does not translate to a couple of sound bites. This report attempts to boil down this mass of data as much as possible. A more complete story is in *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey*.

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